Claims

1. A capacitive acceleration sensor comprising at least one pair of electrodes such, that each pair of electrodes comprises a movable electrode, which is responsive to the acceleration, and at least one stationary plate portion, wherein each pair of electrodes further comprises an axis of rotation essentially forming a common axis such, that

- the movable electrode of the acceleration sensor is rigidly supported at the axis of rotation such, that the movable electrode is free to turn in a rotational motion about the axis of rotation, and that

- the capacitance change between the movable electrode in rotational motion and the plate portion is enhanced by means of the electrodes.

2. The capacitive acceleration sensor of Claim 1, wherein the capacitance change between the movable electrode in rotational motion and the plate portion is enhanced by means of the shape of the electrodes.

3. The capacitive acceleration sensor of Claim 2, wherein the pair of electrodes is shaped by means of the movable electrode such, that a significant portion of the area of the pair of electrodes is situated as far away as possible from the axis of rotation of the movable electrode.

4. The capacitive acceleration sensor of Claim 2, wherein the pair of electrodes is shaped by the at least one stationary plate portion such, that a significant portion of

the area of the pair of electrodes is situated as far away as possible from the axis of rotation of the movable electrode.

5. The capacitive acceleration sensor Claim 2, wherein the pair of electrodes is shaped by means of the movable electrode and the at least one stationary plate portion such, that a significant portion of the area of the pair of electrodes is situated as far away as possible from the axis of rotation of the movable electrode.

6. The capacitive acceleration sensor of Claim 1, wherein the movable electrode has essentially two support points with associated springs providing a degree of freedom of rotation for the movable electrode about the axis of rotation.

7. The capacitive acceleration sensor of Claim 6, wherein the movable electrode is supported by torsion springs close to its edge.

8. The capacitive acceleration sensor of Claim 6, wherein the movable electrode is supported by torsion springs at separate projections.

9. The capacitive acceleration sensor of Claim 6, wherein movable electrode is supported at its interior by torsion springs.

10. The capacitive acceleration sensor of Claim 6, wherein the movable electrode is supported by springs, having degrees of freedom of bending and rotation of equal order of magnitude.

11. The capacitive acceleration sensor of Claim 6, wherein the movable electrode has at least three support points, two of which are essential support points.

12. The capacitive acceleration sensor of Claim 1, wherein the pair of electrodes is shaped in the shape of a triangle.

13. The capacitive acceleration sensor of Claim 1, wherein the pair of electrodes is shaped in the shape of a drop.

14. The capacitive acceleration sensor of Claim 1, wherein the pair of electrodes is shaped in the shape of a hammer.

15. The capacitive acceleration sensor of Claim 1, wherein the capacitance change between the movable electrode in rotational motion and the plate portion is enhanced by means of a coating on the electrodes.

16. The capacitive acceleration sensor of Claim 1, wherein the capacitance change between the movable electrode in rotational motion and the plate portion is enhanced by having a larger electron gap between the electrodes.

17. The capacitive acceleration sensor of Claim 1, wherein the acceleration sensor structure comprises a second stationary electrode on the opposite side of each movable electrode.